

ABSTRACT OF THE DISCLOSURE

Waste oily water is concentrated by expelling permeate water away from the oil component through ceramic membranes of a cross-flow filter. The filter is in a circulation ring, and is routinely cleaned in situ. The ring has two sight-glass reservoirs between which the cleaning fluid is see-sawed during cleaning cycles, the reverse, oscillating chemical flow being triggered by sight glass float switches. Large annual throughputs are achieved by linking in more processor rings, under control of a single PLC (Programmable Logic Controller), for automated processing. High membrane filter rates are achieved, in the range of 1 to 2 million litres per year per square meter of filter membrane surface area. The system is fail-safe and environmentally friendly.